

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

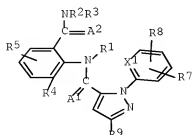
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ACCESSION NUMBER: 2005:470209 CAPLUS Full-text  
DOCUMENT NUMBER: 143:2638  
TITLE: Synergistic insecticidal compositions  
comprising  
nicotinic receptor agonists and antagonists  
and  
anthranilic acid amides  
INVENTOR(S): Funke, Christian; Fischer, Reiner; Fischer,  
Ruediger;  
Hungenberg, Heike; Andersch, Wolfram;  
Thielert,  
Wolfgang; Kraus, Anton  
PATENT ASSIGNEE(S): Bayer Cropscience Aktiengesellschaft, Germany  
SOURCE: PCT Int. Appl., 71 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

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 OTHER SOURCE(S): MARPAT 143:2638  
 GI



I

AB Synergistic insecticidal compns. comprising nicotinic receptor agonists and antagonists RNACX:XE [R= H, (un)substituted acyl, alkyl, aryl, etc.; A = H, acyl, alkyl, aryl, etc.; E = electron receptor; X = CH or N; Z = alkyl, OR, SR or NR2; ANCZ = cycle] and anthranilic acid amides I [A1, A2 = O or S; X1 = N or C10; R1 = H, (un)substituted alkyl, alkenyl, alkynyl or cycloalkyl, the substituents being R6, halo, CN, etc.; R2 = H, alkyl, alkenyl, alkynyl, cycloalkyl, alkoxy, etc.; R3 = H, alkyl, alkenyl, etc.; R2NR3 = ring; R4 = H, (halo)alkyl, (halo)alkenyl, etc.; R5, R8 = H, halo, (un)substituted (halo)alkyl, etc.; R6 = CH(:E1), LCH(E1), etc.; E1 = O, S, NH, N:S:O, N(NO)2, etc.; L = O, S, NH, etc.; R7 = H, halo, (halo)alkyl, (halo)alkoxy, etc.; R9 = halo, haloalkyl, haloalkoxy or halosulfinyl].

<http://www.cas.org/support/stngen/stdoc/properties.html>

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L2 1 131748-59-9/RN

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RN 131748-59-9 REGISTRY  
CN Guanidine, N-[(2-chloro-5-thiazolyl)methyl]-N'-methyl-N''-nitro-  
(CA

INDEX NAME)

OTHER NAMES:

CN CGA 322704

MF C6 H8 Cl N5 O2 S

CI COM

SR CA

LC STN Files: CA, CAPLUS, CASREACT, CHEMLIST, CIN, TOXCENTER,  
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USPATFULL

DT.CA Caplus document type: Journal; Patent

RL.P Roles from patents: BIOL (Biological study); PREP  
(Preparation); PROC

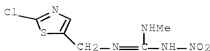
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RLD.P Roles for non-specific derivatives from patents: BIOL  
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study); USES (Uses)

RL.NP Roles from non-patents: BIOL (Biological study); OCCU  
(Occurrence);

PREP (Preparation); PRP (Properties)



<http://www.cas.org/support/stngen/stndoc/properties.html>

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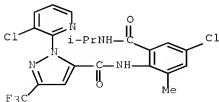
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MF C21 H18 Cl2 F3 N5 O2 . C9 H10 Cl N5 O2  
CI MXS  
SR CA  
LC STN Files: CA, CAPLUS, USPATFULL  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: BIOL (Biological study); USES (Uses)

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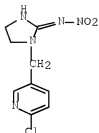
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CRN 138261-41-3

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L4 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2009 ACS on STN

RN 500008-45-7 REGISTRY

ED Entered STN: 19 Mar 2003

CN 1H-Pyrazole-5-carboxamide, 3-bromo-N-[4-chloro-2-methyl-6-  
[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA

INDEX NAME)

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CN Coragen

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CN DPX-E 2Y45

CN E 2Y45

CN Rynaxypyr

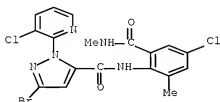
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MF C18 H14 Br Cl2 N5 O2

CI COM

SR CA

LC STN Files: ANABSTR, CA, CAPLUS, CASREACT, CBNB, RTECS\*,  
 TOXCENTER,  
 USPAT2, USPATFULL  
 (\*File contains numerically searchable property data)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

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 46 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 271 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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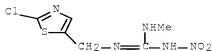
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 RN 131748-59-9 REGISTRY  
 ED Entered STN: 01 Feb 1991  
 CN Guanidine, N-[(2-chloro-5-thiazolyl)methyl]-N'-methyl-N''-nitro-  
 (CA

INDEX NAME)

OTHER NAMES:

CN CGA 322704  
 MF C6 H8 Cl N5 O2 S  
 CI COM  
 SR CA

LC STN Files: CA, CAPLUS, CASREACT, CHEMLIST, CIN, TOXCENTER,  
USPAT2,  
USPATFULL



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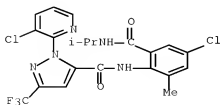
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YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y  
THE ESTIMATED COST FOR THIS REQUEST IS 6.85 U.S. DOLLARS  
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

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RN 852326-21-7 REGISTRY  
CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[(1-methylethylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)-, mixt. with [3-[(6-chloro-3-pyridinyl)methyl]-thiazolidinylidene]cyanamide (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C21 H18 Cl2 F3 N5 O2 . C10 H9 Cl N4 S  
CI MXS  
SR CA  
LC STN Files: CA, CAPLUS, USPATFULL  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: BIOL (Biological study); USES (Uses)

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CRN 500008-00-4  
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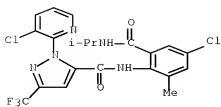
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        methyl-2-ethoxy-1-oxo-2-phenylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-
        (trifluoromethyl)-, mixt. with [C(E)]-N-[[2-chloro-5-
        thiazolyl)methyl]-N'-
        methyl-N''-nitroguanidine (9CI)  (CA INDEX NAME)
FS      STEREOSEARCH
MF      C21 H18 Cl2 F3 N5 O2 . C6 H8 Cl1 N5 O2 S
CI      MXS
SR      CA
LC      STN Files:  CA, CAPLUS, USPATFULL
DL.T.CA Caplus document type: Patent
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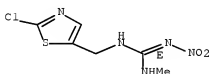


CM 2

CRN 210880-92-5

CMF C6 H8 Cl N5 O2 S

Double bond geometry as shown.



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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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L9 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2009 ACS on STN  
 RN 500008-45-7 REGISTRY  
 ED Entered STN: 19 Mar 2003  
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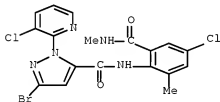
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 CI COM  
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 LC STN Files: ANABSTR, CA, CAPLUS, CASREACT, CBNB, RTECS\*,  
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USPAT2, USPATFULL

(\*File contains numerically searchable property data)



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46 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

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L10 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2009 ACS on STN

RN 210880-92-5 REGISTRY

ED Entered STN: 06 Sep 1998

CN Guanidine, N-[(2-chloro-5-thiazolyl)methyl]-N'-methyl-N''-nitro-,  
[C(E)]-  
(CA INDEX NAME)

OTHER NAMES:

CN Apacz

CN Arena

CN Belay

CN Celero

CN Clothianidin

CN Clutch

CN Clutch (insecticide)

CN Dantotsu

CN Fullswing

CN Poncho

CN Takeloc CLMN 10

CN Takeloc MC 50E

CN TI 435

CN TM 44401

CN V 10170

FS STEREOSEARCH

DR 205510-53-8

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CI COM

SR CA

LC STN Files: ANABSTR, BIOSIS, CA, CAPLUS, CASREACT, CBNB,

CHEMCATS,

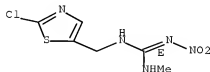
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ULIDAT,

USPAT2, USPATFULL

(\*File contains numerically searchable property data)

Double bond geometry as shown.



<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

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 => s 110  
 L12 613 L10  
 => s 111 and 112  
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 => s 113 and pesticides/ct  
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 DOCUMENT NUMBER: 138:267201  
 TITLE: Pesticidal compositions for coating plant  
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 material containing anthranilamides  
 INVENTOR(S): Berger, Richard Alan; Flexner, John Lindsey  
 PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA  
 SOURCE: PCT Int. Appl., 147 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
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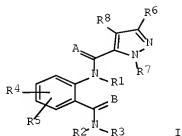
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LK, LR, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
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OTHER SOURCE(S): MARPAT 138:267201  
GI



AB An invertebrate pest control composition for coating a propagule comprises (1) a biol. effective amount of an anthranilamide compds. I (Markush included), an N-oxide thereof or an agriculturally suitable salt thereof, and (2) a film former or adhesive agent. Arthropodicidal composition containing anthranilamide compds. I may further comprise addnl. biol. active compds. selected from arthropodicides of the group consisting of pyrethroids, carbamates, neonicotinoids, neuronal sodium channel blockers, insecticidal macrocyclic lactones,  $\gamma$ -aminobutyric acid (GABA) antagonists, insecticidal ureas, and juvenile hormone mimics, and fungicides. The propagule is a seed of cotton, maize, soybean, rice, etc., or a rhizome, tuber, bulb or corm, or viable division thereof, of potato, sweet potato, garden onion, tulip, daffodil, crocus hyacinth, etc., or is a stem or leaf cutting.

=> d 117 ibib abs ti hitind 2-3

L17 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2003:154155 CAPLUS [Full-text](#)  
DOCUMENT NUMBER: 138:200332  
TITLE: Arthropodicidal anthranilamides  
INVENTOR(S): Lahm, George Philip; Selby, Thomas Paul;  
Stevenson, Thomas Martin  
PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA  
SOURCE: PCT Int. Appl., 82 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 4  
PATENT INFORMATION:

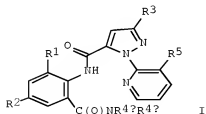
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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GE, GH,          GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR,          LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ,
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PRIORITY APPLN. INFO.:			US 2001-311919P	P
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20040107			IN 2004-MN15	A3
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OTHER SOURCE(S):	MARPAT 138:200332			
GI				



AB Anthranilamides I (Markush included), their N-oxides and agriculturally suitable salts are prepared as arthropodicides for



controlling invertebrate pests. Arthropodicidal compns. containing anthranilamides I may further include addnl. biol. active compds. or agents selected from arthropodicides of the group consisting of pyrethroids, carbamates, neonicotinoids, neuronal sodium channel blockers, insecticidal macrocyclic lactones,  $\gamma$ -aminobutyric acid (GABA) antagonists, insecticidal ureas, and juvenile hormone mimics, *Bacillus thuringiensis* sp. aizawai, *B. thuringiensis* sp. kurstaki, *B. thuringiensis* delta endotoxin, baculoviruses, and entomopathogenic bacteria, viruses and fungi.

L17 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:154154 CAPLUS Full-text

DOCUMENT NUMBER: 138:200331

TITLE: Method for controlling particular insect pests by

applying anthranilamide compounds

INVENTOR(S): Lahm, George Philip; McCann, Stephen

Frederick; Patel,

Kanu Maganbhai; Selby, Thomas Paul; Stevenson,

Thomas

Martin

PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA

SOURCE: PCT Int. Appl., 150 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

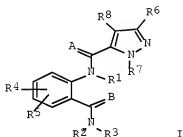
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     EP 2002-750482 A3  
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20020813 <--	JP 2003-520290	A3
20020813 <--	WO 2002-US25613	W
20040107	US 2004-483115	A1
20040108	IN 2004-MN13	A3

OTHER SOURCE(S):            MARPAT 138:200331  
GI



AB Anthranilamide compds. I (Markush included), N-oxides or an agriculturally suitable salts thereof are prepared as insecticides for controlling lepidopteran, homopteran, hemipteran, thysanopteran and coleopteran insect pests. Insecticidal composition containing anthranilamide compds. I may further comprise addnl. biol. active compds. selected from arthropodicides of the group consisting of pyrethroids, carbamates, neonicotinoids, neuronal sodium channel blockers, insecticidal macrocyclic lactones,  $\gamma$ -aminobutyric acid (GABA) antagonists, insecticidal ureas, and juvenile hormone mimics.

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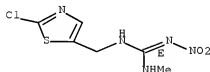
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=> d 119

L19 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2009 ACS on STN  
RN 210880-92-5 REGISTRY  
ED Entered STN: 06 Sep 1998  
CN Guanidine, N-[(2-chloro-5-thiazolyl)methyl]-N'-methyl-N''-nitro-,  
[C(E)]-  
(CA INDEX NAME)  
OTHER NAMES:  
CN Apacz  
CN Arena  
CN Belay  
CN Celero  
CN Clothianidin  
CN Clutch  
CN Clutch (insecticide)  
CN Dantotsu  
CN Fullswing  
CN Poncho  
CN Takeloc CLMN 10  
CN Takeloc MC 50E  
CN TI 435  
CN TM 44401  
CN V 10170  
FS STEREOSEARCH  
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CHEMCATS,  
CHEMLIST, CSCHEM, HSDB\*, MRCK\*, PATDPASPC, RTECS\*, TOXCENTER,  
ULIDAT,  
USPAT2, USPATEFULL  
(\*File contains numerically searchable property data)

Double bond geometry as shown.



=> s 119 and synerg?

613 L19

130087 SYNERG?

L20 75 L19 AND SYNERG?

=> s 120 and (py<2003 or ay<2003 or pry<2003)

22983883 PY<2003

4506011 AY<2003

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L21 12 L20 AND (PY<2003 OR AY<2003 OR PRY<2003)

=> d 121 ti abs ibib hitind 1-12

L21 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN  
 TI Synergistic insecticide mixture preparation of azadirachtin and  
 neonicotine series insecticides  
 AB The title preparation contains azadirachtin 0.05-80, neonicotine  
 series insecticides 1-80, and addnl. adjuvant to 100%. The  
 preparation can be emulsible concentrate, wettable powder, oil  
 suspension, microemulsion, capsule, water dispersible powder,  
 effervescent tablet, etc. The azadirachtin may be from  
 Azadirachta indica oil, Azadirachta indica extract, or crude  
 azadirachtin; and the neonicotine from flonicamid, clothianidin,  
 dinotefuran, nithiazine, thiacloprid, acetamiprid, etc. The  
 product has long acting period.

ACCESSION NUMBER: 2004:830370 CAPLUS Full-text  
 DOCUMENT NUMBER: 141:327128  
 TITLE: Synergistic insecticide mixture preparation  
 of azadirachtin and neonicotine series  
 insecticides  
 INVENTOR(S): Xu, Hanhong; Tian, Yongqing  
 PATENT ASSIGNEE(S): Huanan University of Agriculture, Peop. Rep.  
 China  
 SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu,  
 18 pp.  
 CODEN: CNXXEV  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Chinese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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20021009 <--	A	20030423	CN 2002-134906	
CN 1175742	C	20041117		
PRIORITY APPLN. INFO.:			CN 2002-134906	
20021009 <--				
IC ICM A01N065-00				
CC 5-4 (Agrochemical Bioregulators)				
ST azadirachtin neonicotine synergistic insecticide formulation				
Thiacloprid Acetamiprid				
IT Azadirachta indica				
Pesticide formulations				
(synergistic insecticide mixture preparation of azadirachtin				
and				
neonicotine series insecticides)				
IT Insecticides				
(synergistic; synergistic insecticide mixture preparation				
of azadirachtin and neonicotine series insecticides)				
IT 11141-17-6, Azadirachtin A 58842-20-9, Nithiazine 95507-03-2,				
Azadirachtin B 99399-65-2, Azadirachtin D 111988-49-9,				
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Azadirachtin K				
145686-15-3, Azadirachtin E 145686-16-4, Azadirachtin G				

150824-47-8,

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165252-70-0, Dinotefuran 216880-92-5, Clothianidin  
724428-47-1, Azadirachtin L

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
(synergistic insecticide mixture preparation of azadirachtin

and

neonicotinic series insecticides)

L21 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN

TI Synergistic insecticidal, acaricidal, nematocidal, and  
bactericidal compositions, and pest control with them

AB Title comps. contain GC6H4C(CN):C(A)OB [A = (un)substituted  
heterocyclyl; B = H, Cl-4 haloalkyl, tetrahydropyranyl, SiMe3,  
alkali metal, etc.; G = H, halo, Cl-6 alkyl, (un)substituted C3-6  
cycloalkyl, Cl-4 haloalkoxy, Cl-4 alkylsulfinyl, Cl-4  
alkylsulfonyl, NO2, CN, naphthyl, etc.] and ≥1 compds. chosen from  
conventional pesticides, e.g. anilazine, benalaxyl, benomyl,  
binapacryl, etc. Thus, concomitant use of 2-(4-chlorophenyl)-3-  
(1,3,4-trimethylpyrazol-5-yl)-3-hydroxyacrylonitrile and Ca  
polysulfide showed synergistic acaricidal activity against Aculops  
pelekassi.

ACCESSION NUMBER: 2004:447099 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 141:2859

TITLE: Synergistic insecticidal, acaricidal,  
nematocidal, and bactericidal compositions,

and pest

control with them

INVENTOR(S): Miyake, Toshiro; Inoue, Kohei

PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 88 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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OTHER SOURCE(S):	MARPAT 141:2859				
IC ICM	A01N043-56				
ICS	A01N029-12; A01N037-02; A01N037-36; A01N041-02; A01N043-36; A01N043-58; A01N043-76; A01N043-78; A01N043-80; A01N047-14; A01N047-24; A01N047-34; A01N055-04; A01N057-10; A01N057-14; A01N057-16; A01N059-02; C07D231-12				
CC	5-4 (Agrochemical Bioregulators)				
	Section cross-reference(s): 25				
ST	synergistic acaricide acrylonitrile calcium polysulfide; insecticide nematocide bactericide synergistic acrylonitrile				
IT	Fungicides (agrochem., synergistic; preparation of acrylonitriles and synergistic pesticides containing them)				

IT Lentinula edodes  
 (extract; preparation of acrylonitriles and synergistic pesticides containing them)  
 IT Acaricides  
 Antibacterial agents  
 Insecticides  
 Nematocides  
 (synergistic; preparation of acrylonitriles and synergistic pesticides containing them)

L21 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN  
 TI Fenoxanil-containing bactericidal and insecticidal composites  
 AB The title pesticidal composite contains fenoxanil, and at least one bactericide or at least one insecticide. The bactericide may be from carpropamid, jinggangmycin, bismethiazol, isocyanuric acid, oxolinic acid; and the insecticide from triazophos, chlorpyrifos, pyraclofos, pyrethrins (etofenprox), buprofezin, monosultap, bisultap, cartap, fipronil, acetamiprid, nitenpyram, imidacloprid, dinotefuran, thiamethoxam, thiacloprid and clothianidin. The ratio of fenoxanil to another bactericide is 1:15-15:1 for the binary compound; and the ratio of fenoxanil : another bactericide : insecticide is from 1:1-20:1-30 to 20:1-. The concentration of the available component in the compound is 0.05-99.5%. The product is highly effective against rice disease.

ACCESSION NUMBER: 2003:1008669 CAPLUS Full-text  
 DOCUMENT NUMBER: 140:194924  
 TITLE: Fenoxanil-containing bactericidal and insecticidal composites  
 INVENTOR(S): Hu, Naidong; Ma, Yunsheng; Shi, Qingling  
 PATENT ASSIGNEE(S): Guo, Xiao, Peop. Rep. China; Wang, Lijuan; Hao,  
 Chunyan  
 SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 12 pp.  
 CODEN: CNXXEV  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Chinese  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

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IC	ICM A01N047-40				
CC	5-6 (Agrochemical Bioregulators)				
IT	Cooperative phenomena (synergism; fenoxanil-containing bactericidal and insecticidal composites)				

IT 87-90-1, Trichloroisocyanuric acid 108-80-5D, Isocyanuric acid, chloro and bromo derivs. 108-94-1, Cyclohexanone, biological studies 151-21-3, Sodium dodecylsulfate, biological studies 1343-98-2, Silicic acid 2782-57-2, Dichloroisocyanuric acid 2921-88-2, Chlorpyrifos 7783-20-2, Ammonium sulfate, biological studies 8061-51-6, Sodium lignosulfonate 14698-29-4, Oxolinic acid 15263-53-3, Cartap 24017-47-8, Triazophos 29547-00-0, Monosultap 52207-48-4, Bisultap 58194-43-7, Jínggàngmýcýn 69327-76-0, Buprofezin 79319-85-0, Bismethiazol 80844-07-1, Etofenprox 89784-60-1, Pyraclofos 104030-54-8, Carpropamid 111988-49-9, Thiachlopid 115852-48-7, Fenoxanil 120068-37-3, Fipronil 135410-20-7, Acetamidrid 138261-41-3, Imidaclopid 150824-47-8, Nitenpyram 153719-23-4, Thiamethoxam 165252-70-0, Dinotefuran 210880-92-5, Clothianidin 661465-28-7, Fenoxanil-jínggàngmýcýn mixture 661465-29-8, Fenoxanil-oxolinic acid mixture 661465-35-6  
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (fenoxanil-containing bactericidal and insecticidal composites)

L21 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN

TI Synergistic insecticidal mixtures

AB Synergistic insecticidal mixts. contain clothianidin and abamectin, emamectin or emamectin benzoate, methiocarb,  $\beta$ -cyfluthrin or  $\lambda$ -cyhalothrin.

ACCESSION NUMBER: 2003:610145 CAPLUS Full-text  
 DOCUMENT NUMBER: 139:129421  
 TITLE: Synergistic insecticidal mixtures  
 INVENTOR(S): Andersch, Wolfram; Erdelen, Christoph; Jeschke, Peter  
 PATENT ASSIGNEE(S): Bayer CropScience AG, Germany  
 SOURCE: PCT Int. Appl., 77 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
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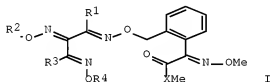
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IN 2003MU00039	A	20050128	IN 2003-MU39
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CA 2474086	A1	20030807	CA 2003-2474086
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EP 1473997	A1	20041110	EP 2003-701526
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BR 2003007356	A	20041214	BR 2003-7356
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CN 1646017	A	20050727	CN 2003-807691
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CN 100360028	C	20080109	
NZ 534368	A	20060224	NZ 2003-534368
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CN 1895048	A	20070117	CN 2006-10100199
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CN 101107929	A	20080123	CN 2007-10006746
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AU 2003202575	B2	20081113	AU 2003-202575
20030120 <--			
EG 23409	A	20050621	EG 2003-77
20030127 <--			
ZA 2004005968	A	20050727	ZA 2004-5968
20040727 <--			
MX 2004007298	A	20041029	MX 2004-7298
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US 20050222051	A1	20051006	US 2004-502527
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US 7097848	B2	20060829	
US 20060194747	A1	20060831	US 2006-415811
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AU 2008243057	A1	20081127	AU 2008-243057
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PRIORITY APPLN. INFO.:			DE 2002-10203688 A
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			AU 2003-202575 A3
20030120			CN 2003-807691 A3
20030120			WO 2003-EP478 W
20030120			US 2004-502527 A3
20041117			
IC ICM A01N051-00			

L21 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN  
TI Synergistic fungicidal mixtures of oxime ether derivatives with  
clothianidin  
GI



ACCESSION NUMBER: 2003:570704 CAPLUS Full-text  
DOCUMENT NUMBER: 139:96697  
TITLE: Synergistic fungicidal mixtures of oxime  
ether derivatives with clothianidin  
INVENTOR(S): Grote, Thomas; Ammermann, Eberhard; Stierl,  
Reinhard; Lorenz, Gisela; Stammler, Gerd; Schelberger,  
Klaus;  
Haden, Egon  
PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany  
SOURCE: PCT Int. Appl., 25 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2003059067      A1      20030724      WO 2003-EP12

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GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
LK, LR,  
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ,  
OM, PH,  
PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR,  
TT, TZ,  
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
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KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
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FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK,  
TR, BF,  
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003205564      A1      20030730      AU 2003-205564

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CN 1615079      A      20050511      CN 2003-802271

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CN 1320855      C      20070613  
JP 2005524623      T      20050818      JP 2003-559243

20030103 <--  
IN 2004CN01794      A      20060224      IN 2004-CN1794

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PRIORITY APPLN. INFO.:      DE 2002-10201794      A  
20020117 <--  
WO 2003-EP12      W

20030103  
OTHER SOURCE(S):      MARPAT 139:96697

IC      ICM A01N047-44  
ICS A01N037-36

CC      5-2 (Agrochemical Bioregulators)

ST      synergism fungicide oxime ether deriv mixt clothianidin

IT      Fungicides  
(synergistic; mixts. of oxime ether derivs. with  
clothianidin)

IT      560069-47-8  
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
(synergistic fungicidal composition)

IT      210880-92-5D, Clothianidin, mixts. with oxime ether derivs.  
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
(synergistic fungicidal comps.)

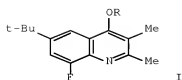
REFERENCE COUNT:      4      THERE ARE 4 CITED REFERENCES AVAILABLE  
FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE  
RE FORMAT

L21 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN

TI      Synergistic insecticidal fungicidal compositions for rice paddy,  
and method for control of insects in rice paddy

GI



AB Title comps. contain quinolines I (R = H, COR1, CO2R1, COCH2OMe, COCH2OCMe; R1 = C1-4 alkyl) or their salts and insecticides for rice paddy. Thus, a wettable composition containing 20 ppm I (R = Ac) and 100 ppm MEP showed 100% fungicidal activity against *Pyricularia oryzae* and 97% insecticidal activity against *Laodelphax striatellus*.

ACCESSION NUMBER: 2003:143338 CAPLUS [Full-text](#)  
DOCUMENT NUMBER: 138:182512  
TITLE: Synergistic insecticidal fungicidal compositions for rice paddy, and method for control of insects in rice paddy  
INVENTOR(S): Teraoka, Takeshi; Matsumura, Makoto  
PATENT ASSIGNEE(S): Meiji Seika Kaisha, Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp. CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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----	JP 2003055115	A	20030226	JP 2001-246035	
20010814 <--					
PRIORITY APPLN. INFO.:				JP 2001-246035	
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OTHER SOURCE(S):	MARPAT 138:182512				
IC	ICM A01N043-42				
ICS	A01N031-14; A01N043-40; A01N043-56; A01N043-88; A01N047-12; A01N047-22; A01N051-00; A01N055-00; A01N057-12; A01N057-14				
CC	5-4 (Agrochemical Bioregulators)				
ST	MEP quinoline synergistic insecticide fungicide rice; agrochem fungicide insecticide MEP quinoline rice				
IT	Fungicides (agrochem.; synergistic insecticidal fungicidal comps. containing quinolines for rice paddy)				
IT	Insecticides <i>Oryza sativa</i> (synergistic insecticidal fungicidal comps. containing quinolines for rice paddy)				

L21 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN  
TI Synergistic fungicidal and plant growth stimulating composition

AB A mixture of fludioxonil, metalaxyl and a strobilurin fungicide achieves markedly enhanced action against plant pathogens and is suitable for improving the growth of plants when applied to plants, parts of plants, seeds, or at their locus of growth. Optionally, the composition comprises a neonicotinoid or phenylpyrazole insecticide as well.

ACCESSION NUMBER: 2002:977567 CAPLUS Full-text  
DOCUMENT NUMBER: 138:34684  
TITLE: Synergistic fungicidal and plant growth stimulating composition  
INVENTOR(S): Watrin, Clifford  
PATENT ASSIGNEE(S): Syngenta Participations A.-G., Switz.  
SOURCE: PCT Int. Appl., 18 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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20020613 <--				
WO 2002102148	A2	20021227	WO 2002-US18933	
WO 2002102148	A3	20030327		
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2449831	A1	20021227	CA 2002-2449831	
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AU 2002306164	A1	20030102	AU 2002-306164	
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US 20030130119	A1	20030710	US 2002-170902	
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US 7071188	B2	20060704		
EP 1416793	A2	20040512	EP 2002-734796	
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MX 2003011494	A	20040319	MX 2003-11494	
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PRIORITY APPLN. INFO.:  
20010614 <--

US 2001-298171P P

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WO 2002-US18933 W

L21 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN

TI Synergistic insecticide mixtures containing sodium channel blockers

AB The invention relates to synergistic insecticidal mixts. containing at least one sodium ion channel blocker and (Z)-3-(6-chloro-3-pyridylmethyl)-1,3-thiazolidin-2-ylidenecyanamide or (E)-1-(2-chloro-1,3-thiazol-5-ylmethyl)-3-methyl-2-nitroguanidine or 1-[(6-chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine.

ACCESSION NUMBER: 2002:555277 CAPLUS Full-text

DOCUMENT NUMBER: 137:105180

TITLE: Synergistic insecticide mixtures containing sodium channel blockers

INVENTOR(S): Bretschneider, Thomas; Fuchs, Rainer;

Andersch,

Wolfram; Ebbinghaus-Kintscher, Ulrich;

Erdelen,

Christoph

PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 74 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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----	WO 2002056691	A1	20020725	WO 2002-EP59	
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RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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IN 2001MU01216	A	20050304	IN 2001-MU1216		
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     BR 2002006550                      A      20040622      BR 2002-6550  
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     JP 2004521888                      T      20040722      JP 2002-557210  
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     CN 1714645                      A      20060104      CN 2005-10084426  
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     ES 2296903                      T3      20080501      ES 2002-709996  
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     EG 23181                      A      20040630      EG 2002-47  
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     TW 244892                      B      20051211      TW 2002-91100634  
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     KR 857843                      B1      20080910      KR 2003-708774  
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     MX 2003006481                      A      20041015      MX 2003-6481  
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     US 20040063703                      A1      20040401      US 2003-250877  
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     AU 2007203226                      A1      20070802      AU 2007-203226  
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    CN 2002-803928      A3  
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    WO 2002-EP59      W  
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 IC    ICM    A01N047-38  
         ICS    A01N047-38; A01N051-00; A01N047-42  
 CC    5-4 (Agrochemical Bioregulators)  
 ST    synergism insecticide mixt sodium channel blocker  
 IT    Sodium channel blockers  
         (mixts. containing; synergistic insecticidal compns.)  
 IT    Insecticides  
         (synergistic; mixts. containing sodium channel blockers)  
 IT    111988-49-9    138261-41-3, 1-[(6-Chloro-3-pyridinyl)methyl]-N-  
 nitro-2-  
         imidazolidinimine 210880-92-5  
         RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
                 (mixts. with sodium channel blockers; synergistic  
                 insecticidal compns.)  
 IT    443096-57-9, Indoxacarb-imidacloprid mixture    443096-58-0,

Indoxacarb-clothianidin mixture 443096-60-4, Indoxacarb-thiacloprid mixture  
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
 (synergistic insecticidal composition)  
 REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN  
 TI Synergistic insecticidal and acaricidal compns. containing neem extract  
 AB The title compns. comprise neem seed extract and any of 35 known insecticides and acaricides.  
 ACCESSION NUMBER: 2002:428627 CAPLUS Full-text  
 DOCUMENT NUMBER: 137:1951  
 TITLE: Synergistic insecticidal and acaricidal compns. containing neem extract  
 INVENTOR(S): Baron, Gerhard; Kilian, Michael; Rosenfeldt, Frank  
 PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany  
 SOURCE: PCT Int. Appl., 22 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002043496	A2	20020606	WO 2001-EP13340	
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WO 2002043496	A3	20020829		
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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AU 2002018304	A	20020611	AU 2002-18304	
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EP 1339288	A2	20030903	EP 2001-998148	
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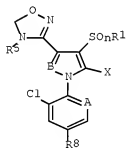


EP 1339288 B1 20070418  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,  
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 AT 359709 T 20070515 AT 2001-998148  
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 ES 2284731 T3 20071116 ES 2001-998148  
 20011119 <--  
 US 20040052878 A1 20040318 US 2003-432979  
 20031003 <--  
 PRIORITY APPLN. INFO.: DE 2000-10059606 A  
 20001201 <--

L21 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN  
 TI Synergistic pesticides in rice paddies  
 AB A synergistic pesticide contains an insecticide like clothianidin,  
 a microbicide like isoprothiolane, and a herbicide. A number of  
 Markush structures of pesticides are claimed.  
 ACCESSION NUMBER: 2002:384278 CAPLUS Full-text  
 DOCUMENT NUMBER: 136:381758  
 TITLE: Synergistic pesticides in rice paddies  
 INVENTOR(S): Akayama, Atsuo; Yamawaki, Takahiro  
 PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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	JP 2002145709	A	20020522	JP 2001-259699	
20010829 <--					
PRIORITY APPLN. INFO.:				JP 2000-260812	A
20000830 <--					
OTHER SOURCE(S):	MARPAT 136:381758				
IC ICM A01N047-38					
ICS A01N037-22; A01N037-24; A01N041-04; A01N043-10; A01N043-76;					
A01N043-78; A01N043-86; A01N047-12; A01N047-36; A01N051-00					
CC 5-3 (Agrochemical Bioregulators)					
ST synergism insecticide microbicide herbicide rice					
IT Fungicides					
Herbicides					
Insecticides					
Molluscicides					
(in synergistic pesticides for rice paddies)					
IT Pyricularia oryzae					
(synergistic pesticides for rice paddies for control of)					
IT 15263-52-2, Cartap hydrochloride 50512-35-1, Isoprothiolane					
122548-33-8, Imazosulfuron 125306-83-4, Cafenstrole 210880-92-5					
, Clothianidin					
RL: AGR (Agricultural use); BSU (Biological study, unclassified);					
BIOL					
(Biological study); USES (Uses)					
(in synergistic pesticides for rice paddies)					

IT 108-62-3, Metaldehyde 27605-76-1 41814-78-2 51218-49-6,  
 Pretilachlor  
 57369-32-1 73250-68-7, Mefenacet 79540-50-4, Etobenzanid  
 85785-20-2,  
 Esprocarb 88678-67-5, Pyributicarb 104030-54-8 110956-75-7,  
 Pentoxazone 115852-48-7 135158-54-2 152542-38-6 153197-14-  
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 Oxaziclonofone 158237-07-1, Fentrazamide  
 RL: AGR (Agricultural use); BSU (Biological study, unclassified);  
 BIOL  
 (Biological study); USES (Uses)  
 (in synergistic pesticides in rice paddies)  
 IT 427893-57-0  
 RL: AGR (Agricultural use); BSU (Biological study, unclassified);  
 BIOL  
 (Biological study); USES (Uses)  
 (synergistic pesticides for rice paddies)  
 IT 220305-15-7 427893-58-1 427893-59-2 427893-60-5 427893-61-  
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 427893-62-7 427893-63-8 427893-64-9 427893-65-0  
 RL: AGR (Agricultural use); BSU (Biological study, unclassified);  
 BIOL  
 (Biological study); USES (Uses)  
 (synergistic pesticides in rice paddies)  
 L21 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN  
 TI Synergistic insecticidal compositions containing oxadiazoline  
 derivatives, insect control, and enhancement of insecticidal  
 action of the  
 derivatives  
 GI



I

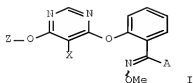
AB Insecticidal compns. contain the derivs. I [R<sup>1</sup> = C1-6 alkyl, C1-6 haloalkyl; n = 0, 1, 2; X = NR<sup>2</sup>R<sup>3</sup> (R<sup>2</sup>, R<sup>3</sup> = H, C1-6 alkyl which may be substituted with pyridyl), N:CHOR<sup>4</sup> (R<sup>4</sup> = C1-6 alkyl), N:CHNR<sup>6</sup>R<sup>7</sup> (R<sup>6</sup>, R<sup>7</sup> = H, C1-6 alkyl), N:CHAR (Ar = Ph which may be substituted with OH or C1-3 alkoxy), pyrrolyl; R<sup>5</sup> = (un)substituted alkyl, (un)substituted acyl; R<sup>8</sup> = halo, C1-6 haloalkyl, C1-6 haloalkoxy, Ph which may be substituted with C1-6

haloalkyl; A = N, CR9 (R9 = Cl, cyano); B = N, CH] or their salts and other agrochem. components such as insecticidal clothianidin, nitenpyram, cartap hydrochloride, bensultap, pyraclofos, etc. Insects are controlled by combined use of I or their salts with the other agrochem. components. Insecticidal activity of I or their salts is enhanced by combined use with the other agrochem. components. I (n = 1, R1 = R8 = CF3, R5 = CONMe2, A = CCl, B = N, X = N:CHOCHMe2) (preparation given) and clothianidin showed synergistic action against Plutella maculipennis larvae in pot culture of cabbage. Agrochem. formulations containing I were also given.

ACCESSION NUMBER: 2001:423412 CAPLUS Full-text  
DOCUMENT NUMBER: 135:30294  
TITLE: Synergistic insecticidal compositions  
containing oxadiazoline derivatives, insect  
control,  
and enhancement of insecticidal action of the  
derivatives  
INVENTOR(S): Akayama, Atsuo  
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 67 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	----
----	JP 2001158785	A	20010612	JP 1999-340604	
19991130 <--					
PRIORITY APPLN. INFO.:				JP 1999-340604	
19991130 <--					
OTHER SOURCE(S):	MARPAT 135:30294				
IC	ICM C07D413-04				
	ICS A01N043-836; C07D413-14				
CC	5-4 (Agrochemical Bioregulators)				
	Section cross-reference(s): 28				
ST	oxadiazoline deriv synergistic insecticide; clothianidin				
	oxadiazoline deriv synergistic insecticide				
IT	Fungicides				
	(agrochem.; preparation of insecticidal oxadiazoline derivs.				
and	synergistic agrochem. insecticides containing them)				
IT	Insecticides				
	(preparation of insecticidal oxadiazoline derivs. and				
synergistic	agrochem. insecticides containing them)				
IT	Insecticides				
	(synergistic; preparation of insecticidal oxadiazoline derivs.				
and	synergistic agrochem. insecticides containing them)				

L21 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN  
TI Synergistic fungicidal compositions.  
GI



AB The title compns. comprise the pyrimidine derivs. I [Z = (un)substituted Ph; X = halo; A = heterocyclyl, CO<sub>2</sub>Me or CHNMe] and any of a large number of known fungicides.

ACCESSION NUMBER: 2000:349202 CAPLUS Full-text

DOCUMENT NUMBER: 132:344443

TITLE: Synergistic fungicidal compositions.

INVENTOR(S): Mauler-Machnik, Astrid; Wachendorf-Neumann, Ulrike;

Gayer, Herbert

PATENT ASSIGNEE(S): Bayer A.-G., Germany

SOURCE: Ger. Offen., 18 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
----	DE 19939841	A1	20000525	DE 1999-19939841	
19990823 <--	IN 1999BO00745	A	20050304	IN 1999-BO745	
19991102 <--	CA 2351500	A1	20000602	CA 1999-2351500	
19991108 <--	WO 2000030440	A2	20000602	WO 1999-EP8558	
19991108 <--	WO 2000030440	A3	20000831		
CR, CU,	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN,				
ID, IL,	CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,				
LV, MA,	IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,				
SG, SI,	MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,				
	SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
CY, DE,	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH,				
BJ, CF,	DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF,				

CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 2000010460 A 20000613 AU 2000-10460

19991108 <--  
AU 752441 B2 20020919  
BR 9915518 A 20010717 BR 1999-15518

19991108 <--  
EP 1130963 A2 20010912 EP 1999-953975

19991108 <--  
EP 1130963 B1 20050302  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,  
MC, PT,  
IE, SI, LT, LV, FI, RO

TR 200101379 T2 20011121 TR 2001-1379

19991108 <--  
HU 2001004483 A2 20020328 HU 2001-4483

19991108 <--  
HU 2001004483 A3 20020429  
TR 200103810 T2 20020621 TR 2001-3810

19991108 <--  
TR 200103811 T2 20020621 TR 2001-3811

19991108 <--  
JP 2002530297 T 20020917 JP 2000-583338

19991108 <--  
CN 1157118 C 20040714 CN 1999-813518

19991108 <--  
EP 1506711 A2 20050216 EP 2004-24463

19991108 <--  
EP 1506711 A3 20050427  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,  
MC, PT,  
IE, FI, CY

AT 289750 T 20050315 AT 1999-953975

19991108 <--  
PT 1130963 T 20050630 PT 1999-953975

19991108 <--  
ES 2238853 T3 20050901 ES 1999-953975

19991108 <--  
TW 521994 B 20030301 TW 1999-88119807

19991115 <--  
US 6559136 B1 20030506 US 2001-856023

20010516 <--  
MX 2001005029 A 20000827 MX 2001-5029

20010518 <--  
US 20030161896 A1 20030828 US 2003-371770

20030221 <--  
PRIORITY APPLN. INFO.: DE 1998-19853559 A1

19981120 <--  
DE 1999-19939841 A

19990823 <--  
EP 1999-953975 A3

19991108 <--  
WO 1999-EP8558 W

19991108 <--  
US 2001-856023 A3

20010516 <--  
OTHER SOURCE(S): MARPAT 132:344443  
IC ICM A01N043-54

CC 5-2 (Agrochemical Bioregulators)  
ST pyrimidine deriv fungicide synergism  
IT Fungicides  
(synergistic; compns. containing pyrimidine derivs.)

=> s l19 and acetylcholin?

613 L19

99752 ACETYLCHOLIN?

L22 41 L19 AND ACETYLCHOLIN?

=> s l22 and (agonist? or antagonist?)

174079 AGONIST?

273680 ANTAGONIST?

L23 31 L22 AND (AGONIST? OR ANTAGONIST?)

=> s l23 and (py<2003 or ay<2003 or pry<2003)

22983883 PY<2003

4506011 AY<2003

3975367 PRY<2003

L24 5 L23 AND (PY<2003 OR AY<2003 OR PRY<2003)

=> d l24 ibib abs ti hitind

L24 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2009 ACS on SIN

ACCESSION NUMBER: 2003:175092 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 138:349994

TITLE: Clothianidin: a novel broad-spectrum

neonicotinoid

insecticide

AUTHOR(S): Ohkawara, Y.; Akayama, A.; Matsuda, K.;

Andersch, W.

CORPORATE SOURCE: Takeda Chemical Industries, Ltd., Tsukuba,

Ibaraki,

300-4293, Japan

SOURCE: BCPC Conference--Pests & Diseases (2002),

(Vol. 1), 51-58

CODEN: BCDCAE

PUBLISHER: British Crop Protection Council

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Clothianidin (TI-435) is a novel neonicotinoid insecticide, acting as an agonist of nicotinic acetylcholine receptor (nAChR). This compound has minimal adverse effects against vertebrates. The potent agonistic action of clothianidin was observed only on insect nAChR, but not on vertebrate ones, indicating that the compound has selective toxicity for insects over vertebrates. Laboratory studies have demonstrated that clothianidin is highly active against not only hemipterous insects but also coleopterous, thysanopterous, dipterous and some lepidopterous pests. Since this compound possesses excellent root systemic properties, it can be used by various application methods. In field trials, clothianidin exhibited excellent control of insect pests by foliar application, paddy water application, soil application and seed treatment. Because of its broad spectrum of insecticidal activity, good systemic properties and low mammalian toxicity, clothianidin is a compound that is considered to be compatible with integrated pest management strategies.

TI Clothianidin: a novel broad-spectrum neonicotinoid insecticide  
CC 5-4 (Agrochemical Bioregulators)  
IT 210680-92-5, Clothianidin:  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(clothianidin as broad-spectrum neonicotinoid insecticide)  
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE  
FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE  
RE FORMAT

=> d 124 ibib abs ti hitind 2-5

L24 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2002:586328 CAPLUS Full-text  
DOCUMENT NUMBER: 138:132444  
TITLE: Evaluation of affinity of neonicotinoid  
insecticides  
for rat brain nicotinic acetylcholine  
receptors by [3H] epibatidine-binding assay  
AUTHOR(S): Okumoto, Takashi; Ozoe, Yoshihisa  
CORPORATE SOURCE: Department of Life Science and Biotechnology,  
Faculty  
of Life and Environmental Science, Shimane  
University,  
Matsue, Shimane, 690-8504, Japan  
SOURCE: Nippon Noyaku Gakkaishi (2002), 27(2),  
145-146  
CODEN: NNGADV; ISSN: 0385-1559  
PUBLISHER: Nippon Noyaku Gakkai  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB The affinity of neonicotinoids for rat brain nAChRs was evaluated  
under the optimized (3H)EPI-binding conditions. Imidacloprid,  
acetamiprid, and clothianidin exhibited higher activity than did  
the other compds.; these three compds. at 10  $\mu$ M inhibited specific  
(3H)EPI binding by 60.6, 56.3, and 33.6%. resp. The other  
compds., including the enantiomers of dinotefuran, had little  
inhibitory activity at 10  $\mu$ M, indicating almost no significant  
interaction with  $\alpha 4\beta 2$ -nAChRs in rat brain. Given that the IC50  
values of imidacloprid and acetamiprid are approx. 10  $\mu$ M, the Ki  
values, calculated according to the Cheng-Prusoff equation, was  
.apprx.5  $\mu$ M. Electrophysiol., imidacloprid was reported to be a  
partial agonist with an ECs, of >79  $\mu$ M in chicken  $\alpha 4\beta 2$ -nAChRs  
expressed in Xenopus oocytes. The rank order in terms of activity  
in vitro of the tested compds. appears to be in general agreement  
with that of their acute oral toxicity in rats, as well as that of  
their potency measured based on (3H)nicotine binding to rat  
recombinant  $\alpha 4\beta 2$ -nAChRs. Considering the range of nanomolar  
activity of these compds. in (3H) EPI assays using a cockroach  
nerve preparation, the data presented here indicate that all  
tested compds. are highly selective for cockroach nAChRs vs. rat  
 $\alpha 4\beta 2$ -nAChRs.  
TI Evaluation of affinity of neonicotinoid insecticides for rat brain  
nicotinic acetylcholine receptors by [3H] epibatidine-binding

assay  
 CC 4-4 (Toxicology)  
 Section cross-reference(s): 5  
 IT Brain  
 (evaluation of affinity of neonicotinoid insecticides for rat  
 brain  
 nicotinic acetylcholine receptors by epibatidine-binding  
 assay)  
 IT Nicotinic receptors  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (evaluation of affinity of neonicotinoid insecticides for rat  
 brain  
 nicotinic acetylcholine receptors by epibatidine-binding  
 assay)  
 IT Insecticides  
 (neonicotinoid; evaluation of affinity of neonicotinoid  
 insecticides  
 for rat brain nicotinic acetylcholine receptors by  
 epibatidine-binding assay)  
 IT 135410-20-7, Acetamiprid 138261-41-3, Imidacloprid 150824-47-  
 8,  
 Nitenpyram 153719-23-4, Thiamethoxam 165252-70-0, Dinotefuran  
 210880-92-5, Clothianidin 322639-07-6, (S)-Dinotefuran  
 406466-53-3  
 RL: ADV (Adverse effect, including toxicity); BIOL (Biological  
 study)  
 (evaluation of affinity of neonicotinoid insecticides for rat  
 brain  
 nicotinic acetylcholine receptors by epibatidine-binding  
 assay)  
 REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE  
 FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE  
 RE FORMAT

L24 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2002:108925 CAPLUS [Full-text](#)  
 DOCUMENT NUMBER: 136:274771  
 TITLE: Interaction of dinotefuran and its analogues  
 with  
 nicotinic acetylcholine receptors of  
 cockroach nerve cords  
 AUTHOR(S): Mori, Kazuki; Okumoto, Takashi; Kawahara,  
 Nobuyuki;  
 Ozoe, Yoshihisa  
 CORPORATE SOURCE: Department of Life Science and Biotechnology,  
 Shimane  
 University, Shimane, 690-8504, Japan  
 SOURCE: Pest Management Science (2002), 58(2),  
 190-196  
 CODEN: PMSCF; ISSN: 1526-498X  
 PUBLISHER: John Wiley & Sons Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB To investigate the action of dinotefuran (MTI-446, 1-methyl-2-  
 nitro-3-(tetrahydro-3-furylmethyl)guanidine), a recently developed  
 insecticide, on insect nicotinic acetylcholine receptors (nAChRs),



we determined the potencies of the compound and 22 analogs in inhibiting the specific binding of [3H]epibatidine (EPI), a nAChR agonist, and [3H] $\alpha$ -bungarotoxin ( $\alpha$ -BGT), a comparative nAChR antagonist, to the nerve cord membranes of American cockroaches (*Periplaneta americana*). Racemic dinotefuran inhibited [3H]EPI binding with an IC50 of 890 nM and [3H] $\alpha$ -BGT binding with an IC50 of 36.1  $\mu$ M. Scatchard anal. indicated that the dinotefuran inhibition of [3H]EPI binding was a competitive one. Slight structural modification caused a drastic reduction in potency; only four analogs were found to be equipotent to or more potent than dinotefuran. Chloropyridinyl and chlorothiazolyl neonicotinoid insecticides displayed two or three orders of magnitude higher potency than dinotefuran. There was a good correlation between the IC50 values of tested compds. obtained with [3H]EPI and those obtained with [3H] $\alpha$ -BGT. A better correlation was observed between 3-h knockdown activities (KD50) against German cockroaches (*Blattella germanica*) and IC50 values obtained from [3H]EPI assays than between 24-h lethal activities (LD50) and IC50 values. While the results indicate that dinotefuran and its analogs interact with the ACh-binding site in cockroach nAChRs, it remains to be elucidated why they displayed lower potencies than those expected based on their insecticidal activities.

TI	Interaction of dinotefuran and its analogues with nicotinic acetylcholine receptors of cockroach nerve cords				
CC	5-4 (Agrochemical Bioregulators)				
ST	dinotefuran insecticide nicotinic acetylcholine receptor cockroach; neonicotinoid insecticide <i>Periplaneta</i> nerve cord				
IT	Structure-activity relationship (insecticidal; interaction of dinotefuran and its analogs with nicotinic acetylcholine receptors of cockroach nerve cords)				
IT	<i>Periplaneta americana</i> (interaction of dinotefuran and its analogs with nicotinic acetylcholine receptors of cockroach nerve cords)				
IT	Nicotinic receptors RL: BSU (Biological study, unclassified); BIOL (Biological study) (interaction of dinotefuran and its analogs with nicotinic acetylcholine receptors of cockroach nerve cords)				
IT	Insecticides (neonicotinoid; interaction of dinotefuran and its analogs with nicotinic acetylcholine receptors of cockroach nerve cords)				
IT	Nervous system (nerve cord; interaction of dinotefuran and its analogs with nicotinic acetylcholine receptors of cockroach nerve cords)				
IT	Structure-activity relationship (nicotinic receptor-binding; interaction of dinotefuran and its analogs with nicotinic acetylcholine receptors of cockroach nerve cords)				
IT	165252-51-7	165252-70-0	Dinotefuran	165252-73-3	165252-87-9
8	165253-05-4	165253-10-1	168688-99-1	174458-00-5	174458-03-8
6	182426-48-8	183050-37-5	185043-87-2	201141-17-5	322639-07-6
	406466-23-7	406466-24-8	406466-26-0	406466-28-2	406466-31-8

7 406466-37-3 406466-40-8 406466-44-2 406466-50-0 406466-53-  
3

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(interaction with nicotinic acetylcholine receptors of  
cockroach nerve cords)  
IT 135410-20-7, Acetamiprid 138261-41-3, Imidacloprid 150824-47-  
8,  
Nitenpyram 153719-23-4, Thiamethoxam 210880-92-5, Clothianidin  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(interaction with nicotinic acetylcholine receptors of  
cockroach nerve cords as compared to dinotefuran and its

analogs)  
REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE  
FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE  
RE FORMAT

L24 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1999:549118 CAPLUS Full-text

DOCUMENT NUMBER: 131:181124

TITLE: Aqueous formulations for combating parasitic  
insects

and acarina on humans  
INVENTOR(S): Sirinyan, Kirkor; Horn, Karin; Stocker, Ronald  
Helmut;

Sonneck, Rainer  
PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany  
SOURCE: PCT Int. Appl., 45 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9941987	A1	19990826	WO 1999-EP878	
19990210 <--				
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU,				
CZ, DE,				
DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN,				
IS, JP,				
KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG,				
MK, MN,				
MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL,				
TJ, TM,				
TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE,				
DK, ES,				
FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,				
CG, CI,				
CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
DE 19807630	A1	19990826	DE 1998-19807630	
19980223 <--				
CA 2321206	A1	19990826	CA 1999-2321206	



IT Nicotinic agonists  
 Nicotinic antagonists  
 Pesticide formulations  
 (aqueous ectoparasiticide formulation for humans)

IT 58842-20-9 101336-63-4 101336-64-5 105827-70-1 105828-97-5  
 105843-35-4 105843-36-5 111988-43-3 111988-49-9 111988-51-  
 3 120738-88-7 120738-89-8 131748-47-5 131748-49-7 131748-54-  
 4 131748-55-5 131768-12-2 135410-20-7 135410-92-3 136516-18-  
 2 136516-19-3, AKD 1022 138261-41-3, Imidacloprid 138681-61-5  
 153719-22-3 153719-23-4 165252-70-0 165253-13-4 171103-03-  
 0 171103-04-1 172333-79-8 172333-80-1 172333-81-2 185043-87-  
 2 210890-92-5, Ti 435  
 RL: BUU (Biological use, unclassified); THU (Therapeutic use);

BIOL

(Biological study); USES (Uses)  
 (aqueous ectoparasiticide formulation for humans)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE  
 FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE

RE FORMAT

L24 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 1999:549117 CAPLUS Full-text  
 DOCUMENT NUMBER: 131:166526  
 TITLE: Aqueous formulations of animal  
 ectoparasiticide  
 INVENTOR(S): Sirinyan, Kirkor; Dorn, Hubert; Heukamp,  
 Ulrich  
 PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany  
 SOURCE: PCT Int. Appl., 48 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9941986	A1	19990826	WO 1999-EP875	
19990210 <---				
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU,				
CZ, DE,				
DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN,				
IS, JP,				
KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG,				
MK, MN,				
MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL,				
TJ, TM,				
TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE,				
DK, ES,				

FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,  
 CG, CI,  
 CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
 DE 19807633 A1 19990826 DE 1998-19807633  
 19980223 <--  
 CA 2321209 A1 19990826 CA 1999-2321209  
 19990210 <--  
 AU 9926230 A 19990906 AU 1999-26230  
 19990210 <--  
 AU 750954 B2 20020801  
 BR 9908173 A 20001031 BR 1999-8173  
 19990210 <--  
 EP 1056343 A1 20001206 EP 1999-906223  
 19990210 <--  
 EP 1056343 B1 20041013  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT,  
 IE, SI,  
 LT, LV, FI, RO  
 TR 200002443 T2 20001221 TR 2000-2443  
 19990210 <--  
 HU 2001000790 A2 20010828 HU 2001-790  
 19990210 <--  
 JP 2002503681 T 20020205 JP 2000-532013  
 19990210 <--  
 EE 200000485 A 20020215 EE 2000-485  
 19990210 <--  
 NZ 506460 A 20030131 NZ 1999-506460  
 19990210 <--  
 TW 581660 B 20040401 TW 1999-88102018  
 19990210 <--  
 RU 2232505 C2 20040720 RU 2000-124395  
 19990210 <--  
 AT 279114 T 20041015 AT 1999-906223  
 19990210 <--  
 PT 1056343 T 20050131 PT 1999-906223  
 19990210 <--  
 ES 2230835 T3 20050501 ES 1999-906223  
 19990210 <--  
 IL 137618 A 20060820 IL 1999-137618  
 19990210 <--  
 CN 1328958 C 20070801 CN 1999-805324  
 19990210 <--  
 ZA 9901385 A 19990823 ZA 1999-1385  
 19990222 <--  
 BG 104690 A 20011031 BG 2000-104690  
 20000815 <--  
 BG 64814 B1 20060531  
 MX 2000008051 A 20010405 MX 2000-8051  
 20000817 <--  
 NO 2000004188 A 20001023 NO 2000-4188  
 20000822 <--  
 NO 324076 B1 20070806  
 HK 1037479 A1 20080523 HK 2001-108376  
 20011128 <--  
 US 20030162773 A1 20030828 US 2003-347003  
 20030117 <--  
 US 7384938 B2 20080610

PRIORITY APPLN. INFO.:  
19980223 <--

DE 1998-19807633 A

WO 1999-EP875 W

19990210 <--

US 2000-622660 B1

20000821 <--

OTHER SOURCE(S): MARPAT 131:166526

AB The invention relates to aqueous formulations for combating parasitic insects and acarina on the skin of animals, having the following composition: (a) agonists or antagonists of nicotinic acetylcholine receptors of insects, at 1-20 weight %; (b) water, at 2.5-15 weight %; (c) solvents from the group of alcs., such as benzyl alc., tetrahydrofurfuryl alc. or optionally-substituted pyrrolidone, at  $\geq 20$  weight %; (d) solvents from the group of the cyclic carbonates or lactones, at 5-50.0 weight %; (e) optionally, other adjuvants from the group of the thickening agents, spreading agents, colorants, antioxidants, expanding agents, preserving agents, deposit builders and emulsifiers, at 0.025-10 weight %.

TI Aqueous formulations of animal ectoparasitocides

IC ICM A01N051-00

ICS A01N061-00; A01N051-00; A01N043-36; A01N043-08; A01N031-04;  
A01N025-02; A01N061-00; A01N043-36; A01N043-08; A01N031-04;  
A01N025-02

CC 5-4 (Agrochemical Bioregulators)

Section cross-reference(s): 2

IT Nicotinic agonists

Nicotinic antagonists

(in aqueous formulations of animal ectoparasitocides)

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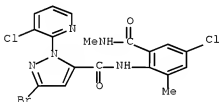
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L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2009 ACS on STN  
RN 500008-45-7 REGISTRY  
ED Entered STN: 19 Mar 2003  
CN 1H-Pyrazole-5-carboxamide, 3-bromo-N-[4-chloro-2-methyl-6-  
[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA  
INDEX NAME)  
OTHER NAMES:  
CN Altacor  
CN Chlorantraniliprole  
CN Coragen  
CN DK1 0001  
CN DPX-E 2Y45  
CN E 2Y45  
CN Rynaxypyr  
DR 921612-71-7  
MF C18 H14 Br Cl2 N5 O2  
CI COM  
SR CA  
LC STN Files: ANABSTR, CA, CAPLUS, CASREACT, CBNB, RTECS\*,  
TOXCENTER,  
USPAT2, USPATFULL  
(\*File contains numerically searchable property data)



<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate  
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L2 271 L1

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L3 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2004:270097 CAPLUS Full-text  
DOCUMENT NUMBER: 140:282468  
TITLE: Cloning and characterization of insect  
ryanodine receptors and their use for screening for  
insecticidal compounds  
INVENTOR(S): Caspar, Timothy; Cordova, Daniel; Gutteridge,  
Steven; Rauh, James J.; Smith, Rejane M.; Wu, Lihong;  
Tao, Yong  
PATENT ASSIGNEE(S): E. I. Du Pont de Nemours and Company, USA  
SOURCE: PCT Int. Appl., '731 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

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PRIORITY APPLN. INFO.: US 2002-412795P P  
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20030923 WO 2003-US29834 W  
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AB The genes encoding ryanodine receptor homologs are provided from multiple insect families including lepidopteran tobacco budworm (*Heliothis virescens*), homopteran green peach aphid (*Myzus persicae*), corn plant hopper (*Peregrinus maidis*), cotton melon aphid (*Aphis gossypii*), and fruitfly (*Drosophila melanogaster*). The full-length genes were isolated, cloned, and amplified in bacterial cells. Expression in insect cells shows that the recombinant protein folds into a functional calcium release channel. The genes and their corresponding polypeptides have a number of uses including, but not limited to, the isolation of other pest ryanodine receptors, the development of screens to identify insecticidally active compds., use of fragments of genes as pesticides, fragments of protein for antibody production, fragments of protein for determination of the structure of insecticide binding sites, and identification of insecticides that disrupt the calcium balance in cells through other messengers that interact with the receptor calcium release mechanism. Methods are outlined for overcoming toxic effects of expressing recombinant proteins in host cells.  
TI Cloning and characterization of insect ryanodine receptors and their use  
for screening for insecticidal compounds  
IC ICM C12N  
CC 3-3 (Biochemical Genetics)  
Section cross-reference(s): 5, 6, 12  
IT 58-08-2, Caffeine, biological studies 11103-72-3, Ruthenium red 15662-33-6, Ryanodine 23214-92-8, Doxorubicin 101927-49-5  
362637-84-1 362637-97-6 362639-17-6 362639-45-0 362639-48-  
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675826-03-6 675826-04-7  
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
(cloning and characterization of insect ryanodine receptors and their  
use for screening for insecticidal compds.)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE  
FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE  
RE FORMAT

L3 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2004:101149 CAPLUS Full-text  
DOCUMENT NUMBER: 140:146150  
TITLE: Method for preparing fused oxazinones by  
cyclocondensation of ortho-amino aromatic  
carboxylic

acids with carboxylic acids  
INVENTOR(S): Taylor, Eric Deguyon  
PATENT ASSIGNEE(S): E.I. Du Pont de Nemours and Company, USA  
SOURCE: PCT Int. Appl., 80 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

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20030211				WO	2003-US23821 W
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OTHER SOURCE(S):	MARPAT 140:146150				
GI					

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB A method for preparing a fused oxazinone [I; J = an optionally substituted carbon moiety; K together with the two contiguous linking carbon atoms = each (un)substituted a fused Ph ring or a fused 5- or 6-membered heteroarom. ring] is disclosed in which (1) a carboxylic acid of formula J-CO<sub>2</sub>H is contacted with a sulfonyl chloride of formula LS(O)<sub>2</sub>Cl [L= each (un)substituted alkyl, haloalkyl, or Ph] in the presence of an optionally substituted pyridine compound, the nominal mole ratio of sulfonyl chloride to carboxylic acid being from about 0.75 to 1.5; (2) the mixture prepared in (1) is contacted with an ortho-amino aromatic carboxylic acid in the presence of an optionally substituted pyridine compound, the nominal mole ratio of the ortho-amino aromatic carboxylic acid to carboxylic acid (II; K = same as above) charged in (1) being from about 0.8 to 1.2; and (3) addnl. sulfonyl chloride is added to the mixture prepared in (2), the nominal mole ratio of addnl. sulfonyl chloride added in (3) to carboxylic acid charged in (1) being at least about 0.5. More specifically disclosed is a method for preparing a compound of formula (III) [X = N, CR<sub>6</sub>; Y = N, CH; R<sub>1</sub> = H, R<sub>2</sub> = H, Me; R<sub>3</sub> = C1-6 alkyl; R<sub>4</sub> = C1-4 alkyl, halo; R<sub>5</sub> = H, C1-4 alkyl, C1-4 haloalkyl, halo; R<sub>6</sub>, R<sub>7</sub> = H, C1-4 alkyl, C1-4 haloalkyl, halo, cyano, C1-4 haloalkyl; R<sub>8</sub> = H, C1-4 alkyl, C2-4 alkenyl, C2-4 alkynyl, C3-6 cycloalkyl, C1-4 haloalkyl, C2-4 haloalkenyl, C2-4 haloalkynyl, C3-6 halocycloalkyl, halogen, cyano, NO<sub>2</sub>, C1-4 alkoxy, C1-4 haloalkoxy, C1-4 alkylthio, C1-4 alkylsulfinyl, C1-4 alkylsulfonyl, C1-4 alkylamino, C2-8 dialkylamino, C3-6 cycloalkylamino, (C1-4 alkyl)(C3-6 cycloalkyl)amino, etc.; R<sub>9</sub> = CF<sub>3</sub>, OCF<sub>3</sub>, OCHF<sub>2</sub>, OCH<sub>2</sub>CF<sub>3</sub>, S(O)pCF<sub>3</sub>, S(O)pCHF<sub>2</sub>, halo; p = 0-2] using a compound of formula (IV; R<sub>1</sub>-R<sub>5</sub> = same as above; R<sub>7</sub>-R<sub>9</sub> = same as above; X, Y = same as above) that is characterized by preparing the fused oxazinone IV by the method above, using a

compound of the formula LS(O)2Cl as the sulfonyl chloride, a compound of formula (V) (R7-R9 = same as above) as the carboxylic acid, and a compound of formula (VI) (R4, R5 = same as above) as the ortho-amino aromatic carboxylic acid.

L3 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:242097 CAPLUS Full-text

DOCUMENT NUMBER: 138:267201

TITLE: Pesticidal compositions for coating plant propagation

INVENTOR(S): Berger, Richard Alan; Flexner, John Lindsey  
 PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA  
 SOURCE: PCT Int. Appl., 147 pp.  
 CODEN: PIXXD2

DOCUMENT TYPE:

Patent

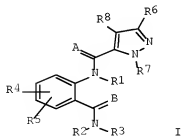
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

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PRIORITY APPLN. INFO.:			US 2001-323941P P
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OTHER SOURCE(S):	MARPAT 138:267201		
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AB An invertebrate pest control composition for coating a propagule comprises (1) a biol. effective amount of an anthranilamide compds. I (Markush included), an N-oxide thereof or an

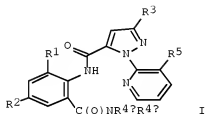
agriculturally suitable salt thereof, and (2) a film former or adhesive agent. Arthropodicidal composition containing anthranilamide compds. I may further comprise addnl. biol. active compds. selected from arthropodicides of the group consisting of pyrethroids, carbamates, neonicotinoids, neuronal sodium channel blockers, insecticidal macrocyclic lactones,  $\gamma$ -aminobutyric acid (GABA) antagonists, insecticidal ureas, and juvenile hormone mimics, and fungicides. The propagule is a seed of cotton, maize, soybean, rice, etc., or a rhizome, tuber, bulb or corm, or viable division thereof, of potato, sweet potato, garden onion, tulip, daffodil, crocus hyacinth, etc., or is a stem or leaf cutting.

L3 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2003:154155 CAPLUS Full-text  
 DOCUMENT NUMBER: 138:200332  
 TITLE: Arthropodicidal anthranilamides  
 INVENTOR(S): Lahm, George Philip; Selby, Thomas Paul;  
 Stevenson,  
 Thomas Martin  
 PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA  
 SOURCE: PCT Int. Appl., 82 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 4  
 PATENT INFORMATION:

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OTHER SOURCE(S): MARPAT 138:200332		
GI		



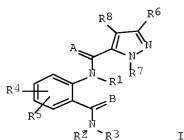
AB Anthranilamides I (Markush included), their N-oxides and agriculturally suitable salts are prepared as arthropodicides for controlling invertebrate pests. Arthropodocidal compns. containing anthranilamides I may further include addnl. biol. active compds. or agents selected from arthropodocides of the group consisting of pyrethroids, carbamates, neonicotinoids, neuronal sodium channel blockers, insecticidal macrocyclic lactones,  $\gamma$ -aminobutyric acid (GABA) antagonists, insecticidal ureas, and juvenile hormone mimics, *Bacillus thuringiensis* sp. aizawai, *B. thuringiensis* sp. kurstaki, *B. thuringiensis* delta endotoxin, baculoviruses, and entomopathogenic bacteria, viruses and fungi

L3 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2003:154154 CAPLUS Full-text  
 DOCUMENT NUMBER: 138:200331  
 TITLE: Method for controlling particular insect pests  
 by  
 applying anthranilamide compounds  
 INVENTOR(S): Lahm, George Philip; McCann, Stephen  
 Frederick; Patel,  
 Kanu Maganbhai; Selby, Thomas Paul; Stevenson,  
 Thomas  
 Martin  
 PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA  
 SOURCE: PCT Int. Appl., 150 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 4  
 PATENT INFORMATION:



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OTHER SOURCE(S):		MARPAT 138:200331		
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AB Anthranilamide compds. I (Markush included), N-oxides or an agriculturally suitable salts thereof are prepared as insecticides for controlling lepidopteran, homopteran, hemipteran, thysanopteran and coleopteran insect pests. Insecticidal composition containing anthranilamide compds. I may further comprise addnl. biol. active compds. selected from arthropodicides of the group consisting of pyrethroids, carbamates, neonicotinoids, neuronal sodium channel blockers, insecticidal macrocyclic lactones,  $\gamma$ -aminobutyric acid (GABA) antagonists, insecticidal ureas, and juvenile hormone mimics.

<http://www.cas.org/support/stngen/stndoc/properties.html>

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E21	1	210880-98-1/RN
E22	1	210880-99-2/RN
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E24	1	210881-01-9/RN

=> s e15

L4 1 210880-92-5/RN

=> d l4

L4 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2009 ACS on STN

RN 210880-92-5 REGISTRY

ED Entered STN: 06 Sep 1998

CN Guanidine, N-[(2-chloro-5-thiazolyl)methyl]-N'-methyl-N''-nitro-, [C(E)]-

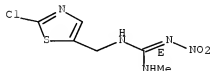
(CA INDEX NAME)

OTHER NAMES:

CN Apacz  
CN Arena  
CN Belay  
CN Celero  
CN Clothianidin  
CN Clutch  
CN Clutch (insecticide)  
CN Dantotsu  
CN Fullswing  
CN Poncho  
CN Takeloc CLMN 10  
CN Takeloc MC 50E  
CN TI 435  
CN TM 44401  
CN V 10170  
FS STEREOSEARCH  
DR 205510-53-8  
MF C6 H8 Cl N5 O2 S

CI COM  
 SR CA  
 LC STN Files: ANABSTR, BIOSIS, CA, CAPLUS, CASREACT, CBNB,  
 CHEMCATS,  
 CHEMLIST, CSCHEM, HSDB\*, MRCK\*, PATDPASPC, RTECS\*, TOXCENTER,  
 ULIDAT,  
 USPAT2, USPATFULL  
 (\*File contains numerically searchable property data)

Double bond geometry as shown.



<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

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=> s l7 and (py<2003 or ay<2003 or pry<2003)
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L8      18 L7 AND (PY<2003 OR AY<2003 OR PRY<2003)

=> d l8 ibib abs ti hitind l3-l8
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L8 ANSWER 13 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2002:384278 CAPLUS Full-text  
 DOCUMENT NUMBER: 136:381758  
 TITLE: Synergistic pesticides in rice paddies  
 INVENTOR(S): Akayama, Atsuo; Yamawaki, Takahiro  
 PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

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PRIORITY APPLN. INFO.:				JP 2000-260812	A
20000830 <--					
OTHER SOURCE(S):	MARPAT 136:381758				
AB	A synergistic pesticide contains an insecticide like clothianidin, a microbicide like isoprothiolane, and a herbicide. A number of Markush structures of pesticides are claimed.				
TI	Synergistic pesticides in rice paddies				
IC	ICM A01N047-38				
	ICS A01N037-22; A01N037-24; A01N041-04; A01N043-10; A01N043-76; A01N043-78; A01N043-86; A01N047-12; A01N047-36; A01N051-00				
CC	5-3 (Agrochemical Bioregulators)				
ST	synergism insecticide microbicide herbicide rice				
IT	Fungicides				
	Herbicides				
	Insecticides				
	Molluscicides				
	(in synergistic pesticides for rice paddies)				
IT	Pyricularia oryzae				
	(synergistic pesticides for rice paddies for control of)				
IT	15263-52-2, Cartap hydrochloride 50512-35-1, Isoprothiolane 122548-33-8, Imazosulfuron 125306-83-4, Cafenstrole 210880-92-5, Clothianidin				
	RL: AGR (Agricultural use); BSU (Biological study, unclassified);				
BIOL	(Biological study); USES (Uses)				
	(in synergistic pesticides for rice paddies)				
IT	108-62-3, Metaldehyde 27605-76-1 41814-78-2 51218-49-6, Pretilachlor				
	57369-32-1 73250-68-7, Mefenacet 79540-50-4, Etobenzanid				
85785-20-2,					
	Esprocarb 88678-67-5, Pyributicarb 104030-54-8 110956-75-7, Pentoxazone 115852-48-7 135158-54-2 152542-38-6 153197-14-				
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	(in synergistic pesticides in rice paddies)				
IT	427893-57-0				
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(synergistic pesticides in rice paddies)

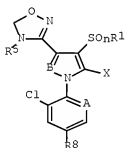
L8 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2002:108925 CAPLUS Full-text  
DOCUMENT NUMBER: 136:274771  
TITLE: Interaction of dinotefuran and its analogues  
with  
nicotinic acetylcholine receptors of cockroach  
nerve  
cords  
AUTHOR(S): Mori, Kazuki; Okumoto, Takashi; Kawahara,  
Nobuyuki;  
Ozoe, Yoshihisa  
CORPORATE SOURCE: Department of Life Science and Biotechnology,  
Shimane  
University, Shimane, 690-8504, Japan  
SOURCE: Pest Management Science (2002), 58(2),  
190-196  
CODEN: PMSCF; ISSN: 1526-498X  
PUBLISHER: John Wiley & Sons Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB To investigate the action of dinotefuran (MTI-446, 1-methyl-2-nitro-3-(tetrahydro-3-furylmethyl)guanidine), a recently developed insecticide, on insect nicotinic acetylcholine receptors (nAChRs), we determined the potencies of the compound and 22 analogs in inhibiting the specific binding of [<sup>3</sup>H]epibatidine (EPI), a nAChR agonist, and [<sup>3</sup>H] $\alpha$ -bungarotoxin ( $\alpha$ -BGT), a comparative nAChR antagonist, to the nerve cord membranes of American cockroaches (*Periplaneta americana*). Racemic dinotefuran inhibited [<sup>3</sup>H]EPI binding with an IC<sub>50</sub> of 890 nM and [<sup>3</sup>H] $\alpha$ -BGT binding with an IC<sub>50</sub> of 36.1  $\mu$ M. Scatchard anal. indicated that the dinotefuran inhibition of [<sup>3</sup>H]EPI binding was a competitive one. Slight structural modification caused a drastic reduction in potency; only four analogs were found to be equipotent to or more potent than dinotefuran. Chloropyridinyl and chlorothiazolyl neonicotinoid insecticides displayed two or three orders of magnitude higher potency than dinotefuran. There was a good correlation between the IC<sub>50</sub> values of tested compds. obtained with [<sup>3</sup>H]EPI and those obtained with [<sup>3</sup>H] $\alpha$ -BGT. A better correlation was observed between 3-h knockdown activities (KD50) against German cockroaches (*Blattella germanica*) and IC<sub>50</sub> values obtained from [<sup>3</sup>H]EPI assays than between 24-h lethal activities (LD50) and IC<sub>50</sub> values. While the results indicate that dinotefuran and its analogs interact with the ACh-binding site in cockroach nAChRs, it remains to be elucidated why they displayed lower potencies than those expected based on their insecticidal activities.  
TI Interaction of dinotefuran and its analogues with nicotinic acetylcholine  
receptors of cockroach nerve cords  
CC 5-4 (Agrochemical Bioregulators)  
IT 135410-20-7, Acetamidrid 138261-41-3, Imidacloprid 150824-47-8,  
Nitenpyram 153719-23-4, Thiamethoxam 219880-92-5, Clothianidin  
RL: BSU (Biological study, unclassified); BIOL (Biological study)

(interaction with nicotinic acetylcholine receptors of  
cockroach nerve  
cords as compared to dinotefuran and its analogs)  
REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE  
FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE  
RE FORMAT

L8 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2001:423412 CAPLUS Full-text  
DOCUMENT NUMBER: 135:30294  
TITLE: Synergistic insecticidal compositions  
containing oxadiazoline derivatives, insect  
control,  
and enhancement of insecticidal action of the  
derivatives  
INVENTOR(S): Akayama, Atsuo  
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 67 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001158785	A	20010612	JP 1999-340604	
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PRIORITY APPLN. INFO.:			JP 1999-340604	
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OTHER SOURCE(S):	MARPAT	135:30294		
GI				



I

AB Insecticidal compns. contain the derivs. I [R1 = C1-6 alkyl, C1-6 haloalkyl; n = 0, 1, 2; X = NR2R3 (R2, R3 = H, C1-6 alkyl which may be substituted with pyridyl), N:CHOR4 (R4 = C1-6 alkyl), N:CHNR6R7 (R6, R7 = H, C1-6 alkyl), N:CHAR (Ar = Ph which may be substituted with OH or C1-3 alkoxy), pyrrolyl; R5 = (un)substituted alkyl, (un)substituted acyl; R8 = halo, C1-6

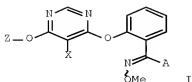
haloalkyl, C1-6 haloalkoxy, Ph which may be substituted with C1-6 haloalkyl; A = N, CR9 (R9 = Cl, cyano); B = N, CH] or their salts and other agrochem. components such as insecticidal clothianidin, nitenpyram, cartap hydrochloride, bensultap, pyraclofos, etc. Insects are controlled by combined use of I or their salts with the other agrochem. components. Insecticidal activity of I or their salts is enhanced by combined use with the other agrochem. components. I (n = 1, R1 = R8 = CF3, R5 = CONMe2, A = CCl, B = N, X = N:CHOCHMe2) (preparation given) and clothianidin showed synergistic action against *Plutella maculipennis* larvae in pot culture of cabbage. Agrochem. formulations containing I were also given.

L8 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2000:349202 CAPLUS Full-text  
 DOCUMENT NUMBER: 132:344443  
 TITLE: Synergistic fungicidal compositions.  
 INVENTOR(S): Mauler-Machnik, Astrid; Wachendorf-Neumann, Ulrike;  
 Gayer, Herbert  
 PATENT ASSIGNEE(S): Bayer A.-G., Germany  
 SOURCE: Ger. Offen., 18 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
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OTHER SOURCE(S):	MARPAT 132:344443			
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AB The title comps. comprise the pyrimidine derivs. I [Z = (un)substituted Ph; X = halo; A = heterocyclyl, CO<sub>2</sub>Me or CHNMe] and any of a large number of known fungicides.

TI Synergistic fungicidal compositions.

IC ICM A01N043-54

CC 5-2 (Agrochemical Bioregulators)

ST pyrimidine deriv fungicide synergism

IT Fungicides

L8 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2009 ACS on SIN

ACCESSION NUMBER: 1999:549118 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 131:181124

TITLE: Aqueous formulations for combating parasitic insects

INVENTOR(S): and acarina on humans  
Sirinyan, Kirkor; Horn, Karin; Stocker, Ronald  
Helmut;

PATENT ASSIGNEE(S): Sonneck, Rainer  
Bayer Aktiengesellschaft, Germany  
SOURCE: PCT Int. Appl., 45 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent  
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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WO 9941987	A1	19990826	WO 1999-EP878	
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RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			

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PRIORITY APPLN. INFO.:			DE 1998-19807630 A
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OTHER SOURCE(S): MARPAT 131:181124

AB The invention relates to aqueous formulations for combating parasitic insects and acarina on the skin of human beings, having the following composition: agonists or antagonists of nicotinic acetylcholine receptors of insects, such as imidacloprid, at 0.0001-7.5 weight %; water, at 20-50 weight %; acyclic alcs., at 20-50 weight %; solvents from the group of cyclic carbonates or lactones, 5-20.0 weight %; and, optionally, other adjuvants from the group of thickening agents, antioxidants, expanding agents, preserving agents, deposit builders and emulsifiers, at ≥30 weight %.

TI Aqueous formulations for combating parasitic insects and acarina on humans

IC ICM A01N051-00

ICS A01N061-00; A01N051-00; A01N043-08; A01N031-02; A01N025-02;  
A01N061-00; A01N043-08; A01N031-02; A01N025-02  
CC 5-4 (Agrochemical Bioregulators)  
IT Nicotinic agonists  
Nicotinic antagonists  
Pesticide formulations  
(aqueous ectoparasiticide formulation for humans)  
IT 58842-20-9 101336-63-4 101336-64-5 105827-70-1 105828-97-5  
105843-35-4 105843-36-5 111988-43-3 111988-49-9 111988-51-  
3 120738-88-7 120738-89-8 131748-47-5 131748-49-7 131748-54-  
4 131748-55-5 131768-12-2 135410-20-7 135410-92-3 136516-18-  
2 136516-19-3, AKD 1022 138261-41-3, Imidacloprid 138681-61-5  
153719-22-3 153719-23-4 165252-70-0 165253-13-4 171103-03-  
0 171103-04-1 172333-79-8 172333-80-1 172333-81-2 185043-87-  
2 210880-92-5, Ti 435  
RL: BUU (Biological use, unclassified); THU (Therapeutic use);  
BIOL (Biological study); USES (Uses)  
(aqueous ectoparasiticide formulation for humans)  
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE  
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RECORD. ALL CITATIONS AVAILABLE IN THE  
RE FORMAT

L8 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1999:549117 CAPLUS Full-text  
DOCUMENT NUMBER: 131:166526  
TITLE: Aqueous formulations of animal  
ectoparasiticide  
INVENTOR(S): Sirinyan, Kirkor; Dorn, Hubert; Heukamp,  
Ulrich  
PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany  
SOURCE: PCT Int. Appl., 48 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU,			
CZ, DE,	DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN,			
IS, JP,	KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG,			
MK, MN,	MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL,			
TJ, TM,				

TR, TT, UA, UG, US, UZ, VN, YU, ZW  
 RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE,  
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 OTHER SOURCE(S): MARPAT 131:166526

AB The invention relates to aqueous formulations for combating parasitic insects and acarina on the skin of animals, having the following composition: (a) agonists or antagonists of nicotinic acetylcholine receptors of insects, at 1-20 weight %; (b) water, at 2.5-15 weight %; (c) solvents from the group of alcs., such as benzyl alc., tetrahydrofurfuryl alc. or optionally-substituted pyrrolidone, at  $\geq 20$  weight %; (d) solvents from the group of the cyclic carbonates or lactones. at 5-50.0 weight %; (e) optionally, other adjuvants from the group of the thickening agents, spreading agents, colorants, antioxidants, expanding agents, preserving agents, deposit builders and emulsifiers, at 0.025-10 weight %.

TI Aqueous formulations of animal ectoparasitocides

IC ICM A01N051-00  
 ICS A01N061-00; A01N051-00; A01N043-36; A01N043-08; A01N031-04;  
 A01N025-02; A01N061-00; A01N043-36; A01N043-08; A01N031-04;  
 A01N025-02

CC 5-4 (Agrochemical Bioregulators)

Section cross-reference(s): 2

IT Nicotinic agonists

Nicotinic antagonists

(in aqueous formulations of animal ectoparasitocides)

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2

210880-92-5, Ti 435

RL: BUU (Biological use, unclassified); BIOL (Biological study);

USES

(Uses)